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KNAPP, JUSTIN R	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/717,886	Applicant(s) KANAZAWA, YUKIKO	
	Examiner Justin Knapp	Art Unit 2182	

-- The MAILING DATE of this communication appears on the cover sheet with th correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The specification is objected to because the material starting from the middle of page 3 and ending at the middle of page 8 appears to be essentially a verbatim repetition of the claims. There is no need to repeat that which can be found elsewhere in its entirety. The purpose of the brief summary of invention is to apprise the public, and more especially those interested in the particular art to which the invention relates, of the nature of the invention; see MPEP §608.01(d).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-3 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. It is unclear as to what is meant by "...dependent on ***the combination*** of the transmission level of said input signal and the reception level received in said receiving means". According to the specification starting at the page 9, line 20 through page 13, line 15, it appears in substance that a keyboard sends an input signal, D, to a information device and then a timer keeps track of when a reception level signal, L is received from the information device. The reception level signal, L is then sent to a reception level portion where the signal, L is compared with the signal, D and finally to a

transmission level switching portion where the transmission level can be altered. No where do any transmission level signals get combined in anyway. It is interpreted that two way communication does take place and as result a transmission level can be changed.

The examiner will use the best interpretation of the claims possible.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 13, 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Shinji, et al (herein referred to as Shinji), Japanese Publication Number 08-163038.

6. Referring to claim 1, Shinji has taught a wireless keyboard for use in transmitting an input signal input by operation of keys thereof to an information processing device, comprising: transmitting means for transmitting said input signal input by operation of said keys to said information processing device at a predetermined transmission level (see figure 1, elements 5,7); receiving means for receiving a reception level of said input signal from said information processing device (see figure 1, elements 6,8);

and said predetermined transmission level of said input signal being increased, decreased, or maintained dependent on a combination of the transmission level of said input signal and the reception level received in said receiving means. Shinji has taught a decoding means to control the electrical signal of the transmission level that starts at a predetermined level, which is

switchable depending on the transmission level and the reception level. In other words, when the two-way communication by the wireless lightwave signal is not materialized in the number-of-times continuation of specification, or addition, a large use range can be taken by changing the amount of drive current supplied to a light-emitting part article one by one.

7. Referring to claim 13, Shinji has taught an information processing device having a wireless keyboard operable as input means, said information processing device comprising:

a receiving portion for receiving an input signal transmitted from said wireless keyboard (see figure 1);

a reception level detecting portion for detecting and outputting the reception level upon receiving said input signal (see figure 1); and

a transmitting portion for transmitting said reception level outputted from said reception level detecting portion to said wireless keyboard, said wireless keyboard increasing, decreasing, or maintaining the transmission level of the input signal transmitted from said wireless keyboard according to said reception level (see figure 1 and well as the rejection of claim 1).

8. Referring to claim 14, Shinji has taught an information processing device wherein said transmitting portion transmits said reception level in sequence at regular intervals (see figure 2).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claim 2, 9, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinji.

11. Referring to claim 2, Shinji has taught a wireless keyboard for use in transmitting an input signal by operation of keys thereof to an information processing device, comprising: transmitting means for transmitting said input signal input by operation of said keys to said information processing device at a predetermined transmission level (as taught herein above); receiving means for receiving a reception level of said input signal from said information processing device (as taught in herein above) and

transmission level switching means for receiving a new transmission level set by said transmission level setting means and increasing, decreasing, or maintaining the transmission level of the input signal transmitted through said transmitting means into the new transmission level (as taught herein above).

Shinji has not explicitly taught a first transmission level setting means for storing the transmission level of said input signal transmitted from said transmitting means and setting a new transmission level with reference to a predetermined transmission level setting table in accordance with a combination of said transmission level and said reception level upon receiving the reception level from said receiving means. However, Shinji has disclosed a teaching that is able to control and change the amount of drive current to a variety of values. Having such teachings, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have developed a transmission level setting table for the purpose of controlling the amount of drive current disclosed by Shinji.

12. Referring to claim 9, Shinji has not explicitly taught a wireless keyboard further comprising an integrated battery and power supply switching means for switching power supply

by an operation of a user wherein the power supply from said integrated battery to an internal circuit is stopped by said power supply switching means by the operation of the user. However, official notice is taken that the motive and modification necessary to comprising an integrated battery and power supply switching means is well known in the art. One of ordinary skill in the art would have been motivated to do this to an electronic device for the purpose of saving the power of an integrated battery by stopping its power flow to an internal circuit wherein instead, the internal circuit receives the necessary power from another power supply source such as an A/C adapter for an outlet in the wall when available.

13. Referring to claim 15, Shinji has not explicitly taught a transmission level switching system comprising a combination of the wireless keyboard as claimed in claim 2 and the information processing device as claimed in claim 13. However, given the reasons as explained in the rejection of claim 2, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the a transmission level switching system taught in the rejection of claim 2 within the information processing device also using a wireless keyboard.

14. Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinji in view of Hu, et al (herein referred to as Hu), United States Patent Number 5,999,799.

15. Referring to claim 3, Shinji has taught a wireless keyboard for use in transmitting an input signal by operation of keys thereof to an information processing device, comprising: transmitting means for transmitting said input signal input by operation of said keys to said information processing device at a predetermined transmission level (as taught herein above); receiving means for receiving a reception level of said input signal from said information processing device (as taught herein above); and

transmission level switching means for receiving a new transmission level set by said transmission level setting means and increasing, decreasing, or maintaining the transmission level of the input signal transmitted through said transmitting means into the new transmission level (as taught herein above).

Shinji has not explicitly taught second transmission level setting means for storing the transmission level of said input signal transmitted from said transmitting means and setting a new transmission level with reference to a predetermined transmission level setting table in accordance with a combination of said transmission level and said reception level up receiving the reception level from said receiving means, said second transmission level setting means detecting a distance information between said wireless keyboard and said information processing device with reference to a predetermined distance information table in accordance with said combination of said transmission level and said reception level upon receiving said reception level from said receiving means and a distance information display means for displaying said distance information upon receiving said distance information. However, Hu has taught a wireless device that stores distance information in accordance with the transmission and reception levels and a distance information display means to alert a user that the user is currently out of range and can not use the wireless device (see column 1, line 63 through column 2, line 24). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Hu within the system disclosed by Shinji to store distance information in a settings table. One would have been motivated to do this as it would allow a user using the device disclosed by Shinji to be alerted as to when the device was out of range. Furthermore, it would be advantageous to utilize the distance information stored by Hu to dictate

the switching of transmission levels as taught by Shinji while the device is in range and a maximum transmission level has not been exceeded.

16. Referring to claim 10, Shinji in view of Hu has not explicitly taught a wireless keyboard further comprising an integrated battery and power supply switching means for switching power supply by an operation of a user wherein the power supply from said integrated battery to an internal circuit is stopped by said power supply switching means by the operation of the user. However, official notice is taken that the motive and modification necessary to comprising an integrated battery and power supply switching means is well known in the art. One of ordinary skill in the art would have been motivated to do this to an electronic device for the purpose of saving the power of an integrated battery by stopping its power flow to an internal circuit wherein instead, the internal circuit receives the necessary power from another power supply source such as an A/C adapter for an outlet in the wall when available.

17. Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinji in view of Kenji, Japanese Publication Number 63-189924.

18. Referring to claim 4, Shinji has not explicitly taught a wireless keyboard further comprising:

a timer for counting a timer period from a first time that said input signal is transmitted from said transmitting means to a second time that said reception level is received by said receiving means and for outputting a time-out signal in the event said reception level is not transmitted within a predetermined time period; and

communication failure indicating means for indicating the communication failure upon receiving the time-out signal.

However, Kenji has taught a timer for counting a timer period from a first time that said input signal is transmitted from said transmitting means to a second time that said reception level is received by said receiving means and for outputting a time-out signal in the event said reception level is not transmitted within a predetermined time period, and a communication failure indicating means for indicating the communication failure upon receiving the time-out signal. (see Abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Kenji's teachings within the system disclosed by Shinji. One would have been motivated to do so to improve the reliability of the system.

19. Referring to claim 11, Shinji in view of Kenji has not explicitly taught a wireless keyboard further comprising an integrated battery and power supply switching means for switching power supply by an operation of a user wherein the power supply from said integrated battery to an internal circuit is stopped by said power supply switching means by the operation of the user. However, official notice is taken that the motive and modification necessary to comprising an integrated battery and power supply switching means is well known in the art. One of ordinary skill in the art would have been motivated to do this to an electronic device for the purpose of saving the power of an integrated battery by stopping its power flow to an internal circuit wherein instead, the internal circuit receives the necessary power from another power supply source such as an A/C adapter for an outlet in the wall when available.

20. Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinji in view of Hu in further view of Kenji.

21. Referring to claim 5, Shinji in view of Hu has not explicitly taught a wireless keyboard further comprising:

a timer for counting a timer period from a first time that said input signal is transmitted from said transmitting means to a second time that said reception level is received by said receiving means and for outputting a time-out signal in the event said reception level is not transmitted within a predetermined time period; and

communication failure indicating means for indicating the communication failure upon receiving the time-out signal.

However, Kenji has taught a timer for counting a timer period from a first time that said input signal is transmitted from said transmitting means to a second time that said reception level is received by said receiving means and for outputting a time-out signal in the event said reception level is not transmitted within a predetermined time period, and a communication failure indicating means for indicating the communication failure upon receiving the time-out signal. (see Abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Kenji's teachings within the system disclosed by Shinji in view of Hu. One would have been motivated to do so to improve the reliability of the system.

22. Referring to claim 12, Shinji in view of Hu in further view of Kenji has not explicitly taught a wireless keyboard further comprising an integrated battery and power supply switching means for switching power supply by an operation of a user wherein the power supply from said integrated battery to an internal circuit is stopped by said power supply switching means by the operation of the user. However, official notice is taken that the motive and modification necessary to comprising an integrated battery and power supply switching means is well known in the art. One of ordinary skill in the art would have been motivated to do this to an electronic device for the purpose of saving the power of an integrated battery by stopping its power flow to

an internal circuit wherein instead, the internal circuit receives the necessary power from another power supply source such as an A/C adapter for an outlet in the wall when available.

23. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shinji in view of Yoshikazu, Japanese Publication Number 02-235499. Shinji has not taught a wireless keyboard wherein said transmission level setting table has a minimum transmission level which is set therein and which can be received and detected normally by said information processing device even in the distance information between said wireless keyboard and said information processing device detected by said second transmission level setting means. However, Yoshikazu has taught a wireless device containing transmission reception unit and output level registers that are used to determine and select the least transmission output that can be used from a keyboard to the main body (see abstract). Given this teaching, it would have been obvious to one of ordinary skill in the art to have used the transmission detection system disclosed by Yoshikazu to determine a minimal transmission setting and incorporate the minimum setting within a setting table. One would have been motivated to do this as a minimal setting would provide the most efficient use of power in a wireless setup while still being reliable.

24. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shinji in view of Kenji in further view of Yoshikazu. Shinji in view of Kenji has not taught a wireless keyboard wherein said transmission level setting table has a minimum transmission level which is set therein and which can be received and detected normally by said information processing device even in the distance information between said wireless keyboard and said information processing device detected by said second transmission level setting means. However, Yoshikazu has taught a wireless device containing transmission reception unit and output level registers that are

used to determine and select the least transmission output that can be used from a keyboard to the main body (see abstract). Given this teaching, it would have been obvious to one of ordinary skill in the art to have used the transmission detection system disclosed by Yoshikazu to determine a minimal transmission setting and incorporate the minimum setting within a setting table. One would have been motivated to do this as a minimal setting would provide the most efficient use of power in a wireless setup while still being reliable.

25. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shinji in view of Hu in further view of Kenji in further view of Yoshikazu. Shinji in view of Hu in further view of Kenji has not taught a wireless keyboard wherein said transmission level setting table has a minimum transmission level which is set therein and which can be received and detected normally by said information processing device even in the distance information between said wireless keyboard and said information processing device detected by said second transmission level setting means. However, Yoshikazu has taught a wireless device containing transmission reception unit and output level registers that are used to determine and select the least transmission output that can be used from a keyboard to the main body (see abstract). Given this teaching, it would have been obvious to one of ordinary skill in the art to have used the transmission detection system disclosed by Yoshikazu to determine a minimal transmission setting and incorporate the minimum setting within a setting table. One would have been motivated to do this as a minimal setting would provide the most efficient use of power in a wireless setup while still being reliable.

Response to Arguments

26. Applicant's arguments filed 11/3/03, paper number 8, have been fully considered but they are not persuasive.

27. Applicant argues in the Remarks with respect to claim 1 on page 8 in essence that:

> "However, merely changing the drive current is not equal to switching the transmission level of an input signal dependent on a combination of both the transmission level and the reception level."

As seen in the above 112 rejection, transmission level and reception levels are not combined. Two way communication does take place between a transmitter and receiver as taught by Shinji and as a result, a transmission level from a wireless input unit to an information device is changeable.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Knapp whose telephone number is (703) 308-6132. The examiner can normally be reached on Mon - Fri 9 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on (703) 308-3301. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Justin Knapp
Examiner
Art Unit 2182

February 5, 2004

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